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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-------------------------|---------------------|------------------|
| 09/270,733      | 03/16/1999  | DAVID MACDONALD DELANEY | 10346RO             | 2879             |

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EXAMINER

HARPER, KEVIN C

ART UNIT PAPER NUMBER

2666

DATE MAILED: 09/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/270,733

Applicant(s)

DELANEY ET AL.

Examiner

Kevin C. Harper

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2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-44 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-17, 19-27 and 29-341 is/are rejected.
- 7) ☒ Claim(s) 8, 18, 28 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Arguments***

1. Applicant's arguments with respect to claims 1-31 and 45-50 have been considered but are moot in view of the new ground(s) of rejection.
2. The indicated allowability of claims 4-5, 7, 10, 14-15, 17, 20, 24-25, 27 and 30 is withdrawn in view of the newly discovered reference(s) to Stone (US 6,041,057) and Schwartz (US 6,185,214). Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-7, 9-17, 19-27, 29-30 and 45-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone (US 6,041,057) in view of Schwartz et al. (US 6,185,214).

3. Regarding claims 1-5, 7, 9-15, 17, 19-25, 27, 29-30 and 45-50, Stone discloses a method of routing packets through a communications network (Figure 1) which has a distinct set of ports (col. 4, line 65 through col. 5, line 6), where each port belongs to one VLAN (col. 5, lines 5-6). A distinct broadcast address is assigned to each set of ports (col. 8, lines 12-15 and lines 46-54) and an egress address is assigned to each packet entering the network (abstract, lines 7-8; col. 7, lines 31-40). An multicast egress address is added to a packet entering the network via an ingress port (col. 7, lines 31-34 and lines 45-48) where the egress address corresponds to a unicast destination address if the unicast destination address is known (col. 7, lines 32-40), or the egress address is a broadcast or multicast address if the destination address is unknown or a broadcast or multicast address (col. 7, lines 45-48; col. 6, lines 32-42). The modified messages are routed according to the egress addresses (col. 8, lines 37-45), restricted to a set of ports (col. 5, lines 4-6; col. 6, lines 19-21 and

lines 38-42) and an egress address is removed from the modified packet (col. 14, lines 13-18; col. 13, lines 44-50; col. 7, lines 31-34 and 45-48). However, Stone does not disclose a correspondence between physical ports and virtual ports. Schwartz discloses a mapping between physical ports and virtual ports (col. 7, lines 7-10). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a correspondence between physical ports and virtual ports in the invention of Stone in order to flexibly assign a physical port to a logical connection or connections within the network. Further regarding claims 21-25, 27, 31, the switches of Stone (Figure 1) are routers that operate at layer 3 (abstract, lines 1-2).

4. Regarding claim 6, 16 and 26, Stone discloses that each packet entering the network is assigned an ingress address (col. 7, lines 12-15). An address association table is populated with ingress address (col. 7, lines 12-15) and used to determining a correspondence between a destination address and an egress address (col. 13, lines 1-6; col. 14, lines 13-19).

#### ***Allowable Subject Matter***

5. Claims 32-44 are allowed.

6. Claims 8, 18, 28 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Casey et al. (US 6,205,488), Belser et al. (US 6,151,324; Figures 2, 3 and 5), and Lee et al. ("End-to-End QoS Architecture for VPNs: MPLS VPN Deployment in a Backbone Network")

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each discloses transmitting information via egress addresses associated with virtual networks.

Specht (US 6,414,958) discloses connecting customer LANs within a VLAN (Figure 5). Wilford (US 6,512,766) discloses multicasting data using egress addressing (abstract, lines 1-5).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays, except Wednesday, from 9:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The fax number for Technology Center (TC) 2600 is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office for TC 2600 at 703-306-0377.

Kevin C. Harper



September 23, 2003

*Seema S. Rao*  
SEEMA S. RAO 9/24/03  
SUPERVISORY PATENT EXAMINER  
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